

PATENT ABSTRACTS OF JAPAN

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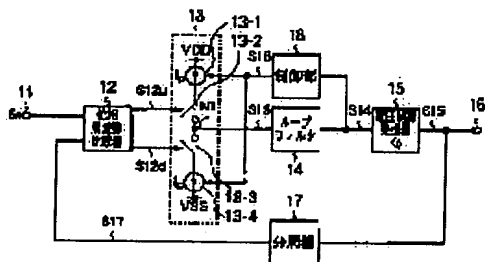
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(54) PHASE LOCKED LOOP CIRCUIT

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a phase locked loop circuit that is stable in operation over a wide frequency band.

SOLUTION: A phase frequency comparator 12 compares a phase and a frequency of an input signal S_i with those of a comparison signal S_{17} and provides an output of a phase lead signal S_{12u} and a phase lag signal S_{12d} . The phase lead signal S_{12u} or the phase lag signal S_{12d} is given to a charge pump 13, which provides an output of an output signal S_{13} . A loop filter 14 smoothes the output signal S_{13} and provides an output of a control voltage S_{14} . The control voltage S_{14} is given to a voltage controlled oscillator 15, which outputs an output signal S_{15} . A frequency divider 17 frequency-divides the output signal S_{15} , which gives a comparison signal S_{17} to the phase frequency comparator 12. Moreover, a control section 18 converts the control voltage S_{14} into a control signal S_{18} . When the frequency of the input signal S_i is low, the control voltage S_{14} is low, a current I_p of current sources 13-1, 13-4 is small, and when the frequency is high, the control signal S_{14} is high and the current I_p is high.



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